



PIER Energy System Integration Program Area

Evaluation of Policy Impacts on the Economic Viability from a Project Owner's Perspective of California Based Distributed Generation/Combined Heat and Power

Contract #: 500-04-015

Contractor: Competitive Energy Insight Inc.

Contract Amount: \$128,621

Match Amount: \$23,442

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Status: Active

Project Description:

There are a number of challenges to achieving greater and more successful penetration of distributed generation (DG) and combined heat and power (CHP) in California. The specific goals of this project are to provide a better understanding of the DG project economic factors affecting deployment. The outcome will provide decision makers including the Energy Commission, The California Public Utilities Commission, and California stakeholders with valuable information about policies that affect the economic viability of DG projects.

Competitive Energy Insight, Inc. (CEI) will perform an economic evaluation of three typical DG/CHP applications in each of the three investor-owned utility service territories in California. Additionally, this project will also evaluate four cases regarding project economics of DG use at California dairy facilities. The analysis will be performed applying CEI's *EconExpert-IAT* and *EconExpert –DG* software product to understand the economic and risk factors associated with DG/CHP applications from the perspective of the various stakeholders including the building owner and private developers who might participate in such transactions.

By applying CEI's unique software products, the Energy Commission will more fully understand the cost/benefit tradeoffs and risk allocations associated with DG/CHP under alternative policy and tariff scenarios.

This project supports the PIER Program objective of:

- Improving the energy cost/value of California's electricity by assessing the drivers and risks that potential DG users face at a project level. This helps provide a clearer understanding of the impacts of policy and tariff structures of DG/CHP economic viability in California.

Proposed Outcomes:

1. Analyze the cost and benefits associated with DG/CHP from the site and project owner's perspective.
2. Conduct sensitivity analyses to address DG/CHP economic impacts of key regulatory and policy factors including:
 - Electric Tariffs.
 - Rebate and incentive programs.
 - Income tax incentives.
 - Fuel pricing and markets.
 - Technology type and operating characteristics.

Project Status:

This project was approved at the December 15, 2004 Business Meeting. The official kickoff will be in early January 2005.